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ABSTRACT

Initial activities of the Pacific Circle, an educational exchange project of the Organization for Economic Cooperation and Development, are reported. Information is divided into four sections. Section I outlines the origins and evolution of the project. Section II details membership and describes the main lines of activity which have taken place within the Pacific Circle Consortium, the group of institutions charged with carrying out the initial cycle of activities. The nature and structure of each of these participating institutions is also described. These institutions are: the Australia Curriculum Development Centre; New Zealand Department of Education; Japan's National Institute for Educational Research; the Canadian Council of Ministers of Education; and, from the United States. the Northwest Regional Educational Laboratory, the East-West Centre Cultural Learning Institute, and the Curriculum Research and Development Group. Section III outlines the types of activities emerging for future work while the final section, section IV, discusses conditions necessary for survival of the Consortium. (LP)

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THE PACIFIC CIRCLE

A Report on the First Cycle of Activity

(Note by the Secretariat)

1. During the Second Annual Meeting of the Pacific Circle Consortium held in Tokyo in April 1973, it was agreed that a general report should be prepared reviewing the various aspects of the work carried out during the initial cycle of the Activity.

2. This report was prepared by Dr. Stephen Kemmis, Deakin University, Geelong, Victoria, Australia, in consultation with the CERI Secretariat. It is circulated for INFORMATION and as background reference material to the discussions about possible directions in the future development of the Activity.

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INTRODUCTION

The Pacific Circle is an activity of the CERI Project on Exchanges on Educational Innovations and is an expression of the interest of OECD Member countries situated on the Pacific rim in collaboration around educational issues of common concern and interest.

The activity was launched experimentally partly in response to recognition that the broad constituency of OECD must be served as fully as possible and that distant Member countries often have particular problems of participation which are important to the Organisation as a whole, and on the assumption that special interests and concerns may arise among Member countries in particular regions of the OECD sphere. Thus, while the Pacific Circle does not suggest an interest in regionalisation of OECD/CERI activities, it represents an opportunity to explore ways in which Member countries in particular regions may collaborate and strengthen their participation in the whole of CERI's Programme of Work.

The initial activity within the Pacific Circle is being conducted by a Consortium of research and development institutions designated by the governments of the participating countries. This is, however, merely one of a number of possible consortia which might be formed within this context for different purposes or among different Member countries. Thus if the concept or notion of co-operation as exemplified by the Pacific Circle experiment proves to be a viable mechanism for co-operation within the CERI context, it is important to learn about the conditions under which it functions, factors which appear to influence its development.

The report undertakes to:

(i) Briefly trace the origins and evolution of the Pacific Circle Activity.

(ii) Describe the main lines of activity which have taken place within the Pacific Circle Consortium, the group of institutions charged with carrying out the initial cycle of activity.

(iii) Describe the nature and structure of each of the institutions participating in the work and the dynamic which has obtained in the evolution and structuring of the Consortium.

(iv) Note certain conditions which arose during the work which appear important to the maintenance of international co-operation of this type.

The form of the report is the following:

Section I is concerned with the origins and evolution of the Pacific Circle activity. It describes the creation of the Pacific Circle Consortium, the group designated to conduct the work of the activity. It notes the main direction of work during this cycle of activity and notes certain dynamics which have emerged and shaped the formulation of the consortium and its work.

Section II outlines the involvement of participating institutions in terms of (1) Origins, (2) Relations with the Policy Group representative, (3) Institutional structure and function, (4) The Development Group, (5) Description of recent work, (6) Evolution of the work, (7) Future activities, (8) Maintenance conditions, stability and interdependence of levels, and (9) Emergent issues.

Section III discusses the types of activity emerging, particularly the move towards establishing a common work project within the consortium.

Section IV is analytic, considering the conditions necessary for the Consortium to become firmly established. It analyses the internal and external interactions of the Consortium and threats to survival internally and externally. It notes constraints and limitations which obtain and suggests certain conditions which appear critical to the maintenance and continuance of such an activity.

SECTION I

ORIGINS AND EVOLUTION OF THE ACTIVITY

Background

1. The concept of the Pacific Circle was explored as early as 1976 in discussions held in Paris and in Australia, New Zealand and Japan between Members of the CERI Secretariat, national authorities from OECD Pacific rim countries and representatives from such national research and development agencies as the Australian Curriculum Development Centre and the Japanese National Institute for Educational Research.

2. During 1976 several bilateral meetings were held involving personnel from institutions within the Member countries to further explore the feasibility and usefulness of establishing a consortium of institutions to carry out a programme of interchange and co-operation around educational themes of common interest and concern. The notion was further explored at a meeting held in Honolulu, Hawaii in March, 1977 - a meeting which was to become the first of a series of annual meetings of consortium institutions, and in May, 1977, the representatives to the CERI Governing Board from the relevant countries met in Paris and formally agreed to the launching of a pilot experiment to be called the Pacific Circle.

3. The conclusions of that meeting are detailed in CERI/PCA/77.01. However, briefly, it was agreed that the activity be initiated on the basis of a Consortium of national institutions to be appointed by the respective Member Governments of Australia, Canada, Japan, New Zealand and the United States, that the experiment be conducted during a pilot period to the end of 1980, and that the overall direction of the work would be under the supervision of a Policy Group made up of the CERI Governing Board representatives of the five countries. The activity would form an integral part of the approved Programme of Work of CERI and the CERI Secretariat would have certain responsibilities in overall co-ordination of the activity, in particular assisting with the organisation of meetings and the preparation of an evaluation of the initial cycle of work.

4. It was also agreed that major funding for the work would be the responsbility of participating Members. It was noted, however, that additional sources of funding might be needed eventually and that support might be sought from outside funding agencies within the established protocols of the OECD.

Overview of the Nature and Development of the Activity

5. The Pacific Circle was established to improve and strengthen co-operation among OECD Member countries in the Pacific area. The project is a two-level one; it is first of all a response to the needs and interests of Pacific rim OECD countries in more intensive collaboration and secondly, a collaborative enterprise whose work is expressed in part through a consortium of national institutions nominated by their respective governments to carry out the work.

6. Within this context, the initial task of the Circle has been to come to grips with how to achieve international co-operation in educational research and development programmes and activities.

7. The institutions designated by the Member countries were:

Australia/The Curriculum Development Centre (CDC)
Japan/The National Institute for Educational Research (NIER)
New Zealand/The New Zealand Department of Education
United States/The Northwest Regional Educational Laboratory (NWREL)
United States/Curriculum Research and Development Group (CRDG)
The University of Hawaii
United States/The East-West Centre Cultural Learning Institute (EWC-CLI)

Canadian interest has been maintained by the Canadian Council of Ministers of Education.

8. The first major meeting of the Circle following its endorsement by the CERI Governing Board Policy Group was held in Tokyo in April, 1978. This meeting, the second annual meeting of Members of the Consortium, established a programme of work for the period following and agreed on a common theme to underly the various activities - The Examination of International Interaction Among Asian and Pacific People and Nations Occurring Around the Use of the Ocean and Trade.

9. Several types of activities and exchanges were established including:

a. Individual institutional work related to the common theme.

b. Information exchange related to the theme and professional educational research and development interests.

c. Bilateral and multilateral work on the development of instructional resources related to the common theme and general purposes of the consortium.

d. Bilateral reviews of materials produced as a result of Pacific Circle involvement.

e. Personnel exchanges on matters of common interest and needs of Member countries and institutions.

Details of these activities are contained in Section II of this report.

10. Following the Tokyo meeting the above activities were further developed and the work set in motion and in September, 1979, the Consortium convened in Sydney and Canberra for purposes of both reviewing the current activity and discussions of possible initiatives in future phases of the work.

The final meeting of the Consortium during this cycle of work will take place in New Zealand in November, 1980.

The Range of Activities

11. The creation of the Pacific Circle as a formal CERI activity offered the prospect of co-operative work in curriculum development and other areas. A range of other activities, could be intensified in participating countries through the Pacific Circle mechanism. There was also a possibility that the Circle could form the basis for a range of educational exchange activities which could intensify interaction among the Member countries involved. Nevertheless, curriculum development processes and products provided the basic commonality of concern during this initial period. From the earliest stages, it seemed that the Circle mechanism might create the possibility for exchange of newly-developed materials between Member countries. There was, moreover, a shared concern about issues of curriculum development, innovation, implementation and evaluation; and beyond that, there was also the possibility of joint development work. This potential for some kind of collaborative development work by the Consortium was especially attractive to some of the participating agencies. Plans expressed in the early documents, however, tended to see the Consortium as a loose confederation of more or less parallel developments rather than a tight joint-development project. From the perspective of some participants, it seemed that expectations and structures were deliberately left open to allow the Consortium to evolve a preferred mode (or modes) of operation; others feel that the commitment to joint development work was established very early on.

12. From the perspective of participating institutions, exchange of materials was at least a first step. After this, co-ordinated, co-operative or joint development seemed appropriate. After all, each participating educational R & D Agency saw it not only as an opportunity for dissemination of its own curriculum products, development styles, procedures and experience, but also as an opportunity to extend its work. The mechanism created by the Consortium offered the possibilities of increasing the knowledge and resource base of each participating agency in pursuit of its own interests and goals intranationally (by incorporating the resources made available by other participating agencies), of increasing the intra-national standing of each agency by its international affiliation with the Consortium, and of extending the roles and interests of each agency into project work with an international base and educational mission. In short, the values and interests of each participating agency could be served and extended by participation, collaboration and contact with other agencies

working in the same field. Moreover, the curriculum development focus of the Circle allowed each to apply its present mode of operation (e.g. curriculum development, implementation, evaluation and dissemination processes) over an expanded domain. One initial attraction, then, was the notion of an expanded market for the products of each agency, but a second followed hard on its heels: the expansion of the domain of activity of primarily intranational agencies into international work(1).

13. The Pacific Circle thus offered the possibility of intensification of interaction between OECD Member countries, but the participating R & D agencies had a double agenda: first to increase country-to-country exchanges and interaction and second, to extend values, interests and modes of operation of each agency through common work. The mechanism of a consortium of R & D agencies from participating countries (rather than national education departments or ministries alone) thus set up a "productive tension" between the two sets of goals: those of country-to-country exchange and interaction, and those of expanding educational R & D work in particular.

14. The "productive tension" created between these two sets of goals was, of course, obvious to all from the beginning. In a classical sense, the mechanism created a community of self-interests between the international interests of national authorities and CERI and the participating institutions. Association with CERI as an international agency and with other national agencies was an inducement to institutions to participate; association through the mechanism of a working consortium of institutions was a productive way for Member countries to intensify their interactions.

15. The "productive tension" thesis is satisfactory as far as it goes. But the interest of the consortium of countries and the consortium of institutions are jointly served only within the community of their self-interests. Outside this mutuality of interests are the self-interests both of the individual agencies (countries on the one hand and the institutions on the other) and of the two "levels" which are created by the arrangement. Each level has its own domain, values, interests, goals and tasks, and there is always the possibility that these may compete or even come into conflict.

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(1) The East-West Centre's Cultural Learning Institute is an exception to most of these generalisations: its own work has always been multinational. For the East-West Centre, the consortium was attractive for two kinds of reasons: first, curriculum for international understanding represented an area where nations might feel a commonality of concern and an interest in jointly solving problems of mutual consequence, and second, the consortium represented a more or less "spontaneous" expression of an impulse to transnational work which paralleled its own interests.

16. Participants in both levels of the Pacific Circle recognise a continuing mutuality of interests which may maintain the integrity of the whole in a looser, more ritualised sense. For the consortium of institutions, the OECD/CERI umbrella may provide legitimisation, co-ordination at official government level, and some resources for communication and administration; for the consortium of countries, the participating R & D agencies may provide tangible evidence of co-operation in the service of international understanding. Moreover, the consortium of institutions may also provide one kind of model of co-operative work which could be replicated for other tasks in educational research and innovation.

17. Thus far, two "levels" of the Pacific Circle have been identified: the consortium of countries and the consortium of institutions. In fact, a third "level" of the Circle may be identified: the development groups and project teams working intra-nationally under the broad umbrella of the level two framework. This third level could hardly be described as a consortium of development groups (they achieve their commonality through the level two framework), but it should be recognised that they do in fact have interactions (between institutions and between countries) which give them some life of their own as an international group. More importantly, however, these development groups incur obligations and create expectations with the teachers and school systems with which they interact most immediately. These local expectations and demands place constraints upon the level two consortium. Once having created these expectations, local development groups are not at liberty to revise their work programmes solely at the behest of the level two consortium.

18. This is a matter of some significance for the Pacific Circle as a whole. Once agreements have been reached, and development teams are engaged in work which will express those agreements in curriculum form, the agreements themselves become constraining for other levels of the Pacific Circle. The accumulation of past work sustains local expectations about each local development and absorbs the resources available. Changes in direction for the level two consortium are consequently more difficult to achieve, no matter how desirable they may seem to participants in discussions at level two.

19. This analysis seems to suggest that a consequence of the accumulation of constraints at level three is that those agencies which have progressed farthest with development work will be least able to change direction as new plans are formulated at level two for the consortium. As should become clear, these constraints are most burdensome for governmental educational R & D agencies with permanent curriculum responsibilities, and least burdensome for semi-government agencies accustomed to short-term, specific project work. This distinction suggests one dimension of potential fragmentation of the present level two group; those with permanent and general curriculum responsibilities within their countries are to some extent impaired in taking up new initiatives created at level two;

those with the smallest accumulation of tasks and expectations are most able to take up new tasks within a revised framework of possibilities for common work.

Levels of Contact

20. The degree to which an organisation can carry out its tasks smoothly and effectively depends in part upon levels of communication between participants. Although no doubt a point can be reached at which communication impairs task-orientation, a degree of mutual understanding is necessary if common work is not to fragment and decay. Like any organisation, the Pacific Circle may fall prey to these difficulties. (The situation is, of course, attenuated for international organisations).

21. It seems a reasonable hypothesis that modes of intense intercommunication within the general network of the Pacific Circle will be likely growth-points for its work. This should be evident both in the exchange of materials between participating institutions and in the commonality of development work within and between institutions. Although no quantitative data have been collected to test this hypothesis, the judgements of individuals in participating institutions support the notion.

22. Participants' judgements of levels of contact among Pacific Circle participants intranationally and internationally give a rough guide to potential growth points for common work in the Circle. The pattern of these judgements allows a number of inferences:

a. OECD contact is evenly spread, though perhaps somewhat more intensive with Australia, Japan and New Zealand due to earlier involvement with these countries in the planning and development of the activity.

b. Japanese contacts are rather evenly spread, with good contact with Australia and the Curriculum Research and Development Group, Hawaii.

c. New Zealand has strong contacts with Australia across all levels of activity. Though high level contact is good across the board, contact at lower levels is less frequent.

d. American contacts are generally strong across the board, but less intense with New Zealand. The Hawaii based institutions have good communications though they have different missions.

e. Likeliest growth points would seem to be in the New Zealand/Australia nexus, within Hawaii (for some types of common work) and between the North West Laboratory and the Curriculum Development Centre.

f. Japanese activities have very good top-down support, but translation of materials has posed some difficulties.

Accumulation of Commitments

23. As has already been mentioned, there is a problem of historicity (the accumulation of past commitments) which makes it more difficult for participants to respond immediately to changes in direction from the consortium of institutions (level two) group. Different institutions are in different stages of development work, and using different modes of operation. Hence there are problems of "leads and lags" in orchestration of the common work programme. In an earlier phase, when participating institutions were relatively unfettered with respect to Pacific Circle work, action could be taken more readily to express new goals in project work. By now, given more substantial development commitments and a greater intricacy of the conceptual framework and interrelationship between development tasks, changes are slower to negotiate.

24. There has been some slippage in projected timescales for Circle activities. This is to be expected given the problems of translating the aspirations of the common work programme into development tasks in each participating country and institution. In any case, the tasks themselves have been redefined and refined as negotiations between the aspirations of consortium participants and the practical demands on local project teams have worked themselves out.

25. It would appear that the last year of operation of the consortium of institutions has represented a consolidation phase, in which the development commitments of participating institutions are working themselves out. But it has also been a time for reflection on possible futures for the consortium: after the initial "settling" phase, participating institutions have designed frameworks for consortium organisation, for communication, for common conceptualisation of education for international understanding and for a common project. These frameworks have been formally agreed by participants and suggest that future operations will be more stable and more differentiated.

SECTION II

PARTICIPANTS

Australia/Curriculum Development Centre (CDC)

CDC Structure and Function

26. CDC is a statutory authority of the Australian Government. Its constituency is thus the nation as a whole. But its curriculum work must serve each State, so consultation and negotiation are necessary if its materials are to be adapted to the needs of slightly different State systems and individual schools.

27. Given CDC's structure, it is possible for it to earmark a small proportion of its budget for Circle-related activities. It is thus in the relatively privileged position among Circle institutions that it may more or less unilaterally (through the action of the Director subject to the approval of the CDC Council) decide to participate in the Circle. But the Circle development work does not attract unanimous support among CDC staff, since the work involves an international perspective for an institution with a national mission, and also because the work appears to some staff to have a privileged status by comparison with other CDC projects. This makes Circle work slightly unstable within CDC, but while it continues to have an internal sponsorship of the Director, it will almost certainly be maintained.

28. CDC's model of curriculum development involves negotiation and consultation with State education authorities, teachers and curriculum consultants. Increasingly, development activities are not set up externally as funded projects outside the Centre itself; rather, management teams in the Centre work with teams of teachers and consultants from State systems in joint development work. Since much of its work has involved materials development (resources for teachers or learning materials for students), CDC still has problems securing implementation of the curriculum ideas in accordance with the philosophy of development teams and with the dissemination of its products. But these two processes are increasingly being regarded as consultative. Thus, CDC is moving away from the "packaging" approach to curriculum development and more towards a "design" approach; away from the preparation of student materials and towards the development of curriculum frameworks and resource materials for teachers: away from the notion of materials development and towards the notion of curriculum development as teacher development. This consultative model tends to be less product-oriented than the preferred curriculum development styles of some Circle participants. It tends to involve fairly lengthy (two to four-year) development periods before products take on a stable form, yet it entails long-term commitments of staff and resources for CDC to deliver on its obligations to the school systems which are its ultimate constituency. This model may be at odds with the approaches of some other Circle-participant institutions.

The Development Group

29. The development group working on Circle materials from the Centre was originally housed in the New South Wales Department of Education. A staff of one, then two developers produced outlines for materials and enlisted the co-operation of a dozen New South Wales schools. They also made a wide range of contacts with agencies providing relevant resource materials, and worked on film materials for the Circle curriculum units. The conceptual framework of the Australian material was developed into the "Ideas Manual". Since that time the group has moved to Canberra (so that it now involves other CDC staff more directly) and the work with teachers and curriculum consultants has also expanded into Tasmania and Victoria, and the range of materials being developed has expanded correspondingly.

Description of recent work in the report of the third annual meeting of the Pacific Circle Consortium, pp. 9-10

30. The framework for the CDC's work programme was outlined in the "Changing Livelihoods" document, prepared during 1978 and circulated to Consortium members. This envisaged the development of five units of work for junior secondary classes on aspects of changing livelihoods in the Pacific region, as well as an Ideas Book for teachers focused at junior secondary level and relating to several disciplinary areas.

31. Until March 1979 the project was based with the New South Wales Department of Education, and was staffed by a Project Officer, and (until December 1978) a Research Officer. In March 1979 the project moved its base to the offices of the CDC, Canberra. It was staffed by a Project Officer (until September 1979) and linked to other CDC programmes through an Action Officer, a permanent member of the CDC staff with a range of responsibilities in the social/cultural/intercultural area. A school network was formed comprising teachers from six schools in New South Wales, two in Victoria, and two in Tasmania. During 1979 teachers were involved in critiquing outlines and draft materials, as well as testing and trialling selected materials in their classes.

32. The first draft of the Teacher Ideas Book was completed in January 1979, and comments and feedback sought from teachers during 1979. The major focus of development work was researching, drafting, trialling and redrafting two units outlined in the Changing Livelihoods document: Travelling Our Shores, (social science, humanities) and Harvesting the Ocean (environmental science, social science). Draft copies of these documents, plus sections of the Ideas Book were presented to the meeting for discussion. It was foreshadowed that following the meeting, member institutions would be invited to contribute to and comment on draft two of the Teacher Ideas Book. The film "People of the Sea - Changing Traditions in Solomon Islands" was completed during 1979 for the project by Film Australia, with funding from the Australian Development Assistance Bureau. This was shown to Consortium Members during the Discussion Forum.

Evolution of the Work

32. CDC's involvement in Circle activities has embraced materials exchange, development of a conceptual framework (at the level of the work of the Circle as a whole and also at the level of the Australian aspect), and materials development with piloting in schools. By now, the Australian work is stabilizing within a general curriculum framework. It is significant to note, however, that the development team has created expectations and obligations with those involved in the development work that it must honour: it is essential that these present commitments be fulfilled in the continuing evolution of its work. Institutions and school systems collaborating with CDC in the developmental work have also committed resources to it, so the obligation to "deliver" in the project is spread from CDC to these other institutions and agencies. Thus, Australia's participation in future work of the consortium of institutions must include these commitments. In order to expand the level of Australian activity, more funds would have to be found, and it is doubtful whether they could be found from within CDC. If the Circle takes up the proposed common project, Australia, like other participants, will depend upon external funding (i.e. outside present institutional resources).

Future Activities

34. By the end of 1979, CDC planned to complete its present Circle work and follow through the development to implementation and dissemination. It now appears that this work will be completed by the end of 1980. Future activities are possible on the model currently being employed, but it is as yet unclear how these will be staffed and financed. It is likely that new work would take place using the present model which is well adapted to CDC's structure and function intranationally. CDC could participate in a programme of joint development work with other Consortium Members, but would require external funding to do so. Finally, given the close association between CDC's activities and its CERI connections, its future participation in work of the Consortium would be facilitated if it continued to be within the CERI programme as an expression of Australia's involvement in CERI.

Maintenance conditions, stability and interdependence of levels

35. Given its structure and function, CDC could continue to be involved in the consortium of institutions from within its own resources so long as the work is acceptable to CDC Council and does not require substantial increases in the levels of resources required from within the CDC budget. Moreover, some of the collaborative activity of the CDC project has established a network of agencies interested in the maintenance of the work. In general, the Australian work is most likely to continue if it can be related to the CERI framework.

36. The CDC work is relatively stable though vulnerable (as is other work elsewhere in the Consortium) because it is dependent on the accumulated experience and expertise of a small development group. But the development processes have now been sufficiently well institutionalised within CDC and in collaborating institutions and school systems that they are less vulnerable in this sense than formerly. Moreover, mechanisms have been developed for working with the teacher groups involved, and this gives CDC's Circle work a somewhat expanded development base.

37. As has already been suggested, close links exist between Policy Group level and the institutional level in CDC's work. These vertical links between the Policy Group representatives, CDC and the development team remain important to CDC though work could continue at the level of the consortium of institutions without substantial involvement of the Policy Group representative in Australia.

Emergent Issues

38. CDC's model of curriculum development may be in conflict with the preferred modes of curriculum development of some of the other participants in the consortium of institutions.

39. CDC must deliver on present obligations to the education system; future work must allow this to occur.

40. Slight instabilities exist in the structure of CDC's contribution to Circle work as the present developers finish their work. Since Circle work is now more institutionalised within CDC, future work could take place and changes in the style of Circle participation could occur.

New Zealand/Department of Education

Institutional participation in the Circle: structure and function

41. New Zealand's representative in the consortium of institutions is the Department of Education. But in fact, the work is carried out by its Central Region. It is thus a fully-governmental agency (rather than a semi-governmental agency or a statutory authority), and it carries official responsibility for education in the Region. In theory, it has power to direct teachers to participate in Circle work, but in reality such direction is a consultative matter. The teachers working with the Circle development do so by choice, not at the direction of the Department. Nevertheless, the Department is in a position to offer the curriculum materials developed by the Central Region team to all New Zealand schools, and to make the resources of the Curriculum Development Division available for production, implementation and evaluation of the developed materials.

42. Structurally, there is a direct line of authority from the Department's Head Office through the Regions to schools. The goals of the New Zealand participating institution are thus in harmony from level one to level two (and level three). Nevertheless, since the operation of the developmental work requires negotiation between Head Office and the Central Region, and between Central Region and participating schools and teachers, it cannot be assumed that development will take place according to some central plan. While it is safe to assume that participation in Circle activities will continue to the extent that resources permit, the substance of development will be influenced by the interests of the different "levels" of participants.

43. The model of curriculum development being employed in New Zealand is highly consultative. Teachers are involved in the work while continuing to hold full responsibility within their schools. For the moment, they have not been released from their duties in schools to participate: they are volunteers and spending extra time in Circle work. This accords with some preferred approaches to curriculum development: it involves teachers who will use the materials directly in their production. Moreover, the work is not dependent on a transient project team who must then disseminate its developed materials to teachers who may use them in their schools. The disadvantages of this approach are that the development team will not usually be an especially expert group in the subject-matter or in curriculum development processes, and that the materials may not be easily disseminable because they command less respect from teachers who want the best possible material. The New Zealanders have undoubtedly cut their development cost according to their cloth; this form f development is not resource intensive. But is is an attractive approach from the teacher perspective, both for those who are involved and for other potential users who will know that the materials were developed by practitioners rather than "experts" who are not constrained by the day-to-day realities of the classroom (and may be slow to take these realities into account). Whether this model of development could be sustained in a more ambitious project remains to be seen. (When the number of interactions between teacher-developers increases dramatically, the problems of communication and co ordination begin to arise more forcefully). And whether the present model could easily be adapted to a more intensive common project for the Circle is also a matter of concern.

The Development Group

44. The New Zealand development team is a group of three teachers working within the Central Region. One is a member of staff of the Correspondence School, which gives an interesting twist to the development process in the sense that it requires a more materials-oriented approach and a greater sense of curriculum design than might be necessary for other schools. Moreover, it suggests that student materials may be developed as well as resources for teachers. Naturally, development has

been at a modest level, though the New Zealand team has been able to profit from early material exchanges with other participants, and continues to do so.

Description of recent work in Report of the Third Annual Meeting of the Pacific Circle Consortium, p. 12

45. The major responsibility delegated from the Secretary of Education for ongoing activities in New Zealand lies with the Central Region Secondary Inspectorate. Mr. G. Aitken, a senior inspector in this district, is responsible for initiation, consultation, administration and co-ordination of the Circle's activities. No additional input of financial or personnel resources has been provided for the activities. A working group of three teachers in the Wellington area prepared to give additional time above normal duties on a long term regular basis (meeting approximately once a month for a day) has continued from April 1978 through September 1979. At the end of 1979 it is intended to invite teachers on a wider basis than present to participate in Pacific Circle activities. The main outcome of the Teacher Working Committee has been the preparation of the unit "Lure of the City", aimed at fourth form social studies students (aged 13-14). This unit was prepared in response to a request from Australian members who had included it in their selection of possible topics for development. The unit should provide the basis for a section of the CDC Teacher Ideas Book. Plans for 1980 include inviting a wide range of schools to trial and evaluate this unit, and the completion of the initial draft of a unit for the Common Project on New Zealand's trading in the Pacific titled "Trade and Interdependence in the Pacific".

Evolution of the work

46. The New Zealand work is evolving gradually, and has profited by the materials exchange early in the Circle activity. It has also adapted to the developing conceptual framework of the Circle as a whole. Being a small development group, however, it is possible that major changes of direction in the conceptual framework or the common work programme could destabilize the steady development process. Certaintly the New Zealanders prefer a gradual evolution of the work to a highly intensive operation which the system cannot afford to maintain from within its own resources. Major external funding might allow a more substantial development to take place, but care would be necessary to ensure that the momentum of a major project can be sustained into dissemination and implementation with appropriate levels of support.

Future Activities

47. The New Zealand work has established a momentum which can be sustained and expanded gradually. As for other governmental and semi-governmental agencies participating in the Circle, it is important for the New Zealanders to deliver a programme to the teachers presently participating and interested in the current work. New obligations can only be accepted within

the capacity of the system to support and maintain them; for this reason, there may be difficulties for the New Zealanders if continuing participation in the consortium of institutions requires major support from the Department (on communication, interaction, organisation, and other management tasks).

Maintenance conditions, stability and interdependence of levels

48. New Zealand is likely to be able to maintain its present commitments to the Circle: it has the internal sponsorship required, and levels of resources required are probably sufficiently low that development can continue. If, however, the economic situation worsens, it may be difficult to maintain international participation in Consortium meetings and substantial levels of intercommunication and exchange.

49. Being a small development group, the New Zealand team is vulnerable to circumstances (e.g. if a teacher could no longer work with the group, a substantial part of its working experience would be lost). As has already been suggested, it is also made vulnerable by changes of direction in the Consortium as a whole. Nevertheless, while present trends in the Consortium continue, the development will probably remain stable.

50. New Zealand is fortunate in having close working relationships between levels of involvement. Because it is an internal Departmental activity, Policy Group representation and institutional participation are relatively well-co-ordinated. The New Zealand structure is well-adapted to the present Circle arrangement. If the structural proposals now being developed by the consortium of institutions are carried through (with the establishment of a consortium of institutions as a relatively free-standing organisation), then there may be problems for New Zealand in justifying participation in the "new" organisation. There may be a sense in which the New Zealanders are in a similar situation to the Japanese: while participation in the Circle is part of a clearly-defined OECD/CERI activity, it can be justified; to the extent that participation imposes demands beyond those of international co-operation under the CERI umbrella, it becomes more difficult to justify.

Emergent issues

51. The major problem for New Zealand in Circle participation is finance. If major levels of funding are required of the Education Department to continue to participate in the consortium of institutions, then it may be difficult to sustain present momentum.

52. There may be problems in relations between national and regional responsibilities in the development work. Intensifying the participation of the Department's Curriculum Development Division may be desirable in securing greater cohesion levels of the Circle and wider national involvement in Circle-related activities and the use of Circle curriculum materials.

Japan/National Institute for Educational Research (NIER)

NIER Structure and Function

53. NIER is an autonomous research and development agency, though it often carried out service research for the Japanese Ministry of Education. Its impact on educational policy and practice in Japan is therefore mediated through Ministry decisions about whether the results of its R & D work should be implemented. It has no direct authority over school curricula, though it often influences them through developing guidelines and materials.

54. NIER thus serves a community of policy-makers and practitioners on the one hand (by its service R & D work), and a community of national and international educational researchers on the other. As in State research agencies in other countries NIER experiences some tensions between "pure" and "service" research interests. To achieve a long-term involvement of Division IV in Circle work would require that external funds be found (from the Ministry or some other agency) so that the Circle can demonstrate its capacity to generate project work within Division IV. From NIER's perspective, it would be desirable that Circle work have a "research" component (perhaps through evaluation projects, research on teaching methods associated with the Circle products, or research on the kinds of cognitive and affective outcomes sought through the Circle's curriculum development programme).

55. NIER's model of curriculum development involves researcher-developers in co-ordination and drafting of guidelines and materials, and consultation and co-development work with teachers. It is a centre-periphery model in the sense that the development team products, trials and finalises the "product" which then becomes available as a package (e.g. guidelines, textbooks) for wider use. This is appropriate to Japan's centralised education system. It was crucial to note, however, that decisions to implement developed curricula are, generally speaking, decisions at Ministry and Provincial levels: the centralised nature of educational provision requires that the "product" be officially approved. But at the present time, the situation is changing. Teachers have several hours each week in which they may pursue teacher- or school-based curricula, and Pacific Circle materials might be used in these "slots" in the broader curriculum. Widespread use would probably depend upon official approval, as well as school needs. For these reasons, curriculum development by NIER must be extremely sensitive to the structural constraints of the Japanese education system; Pacific Circle work which does not take these constraints into account will require extensive modification if it is to be implemented (or, on the other hand, to be adopted, Pacific Circle materials will require approval at the highest level).

Development Groups

56. Two development groups are at work in Japan, both directed from NIER. Mr. Kihara has several groups working in Hiroshima, Kanagawa and Tokyo on broader aspects of the common work programme; Mr. Kato is working with a group in Nagoya on Trading.

57. The Hiroshima and other groups are fairly extensive, involving elementary and high schools, and co-operation between teachers and NIER. Over 30 teachers have worked on the secondary school materials, and Mr. I. Sasaki and his staff at Shinonome Elementary School (affiliated with Hiroshima University) on the elementary school materials. Outline guides have been produced for programmes at both levels.

58. The Nagoya group has progressed rather more slowly. It started later than the Hiroshima group (the Hiroshima group began work before funding was secured in NIER).

Description of recent work in Report of the Third Annual Meeting of the Pacific Circle Consortium, pp. 10-11

59. Early in 1979 the NIER published a "Conceptual Framework of Pacific Circle Study". It ciruclated this to Consortium Members. At the meeting Dr. Kihara discussed developments stemming from this document, and presented copies of draft materials, many sections of which had been translated into English. It was pointed out in discussion of this point that translation remains an unresolved issue and that support for it will become a priority.

60. The NIER's work has involved several groups of people:

(i) Central group at NIER under the direction of Dr. Kihara. This group is responsible for the planning and conduct of the Circle study.

(ii) Development groups

. Hiroshima group - under the direction of Dr. Kihara.

. Tokyo and Kanagawa group - under the direction of Dr. Kihara.

. Nagoya group - under the direction of Dr. Kato.

(iii) Assessment groups

. Hiroshima group (secondary schools).

. Tokyo and Kanagawa group.

. Choosi (Chiba Prefecture) and others.

. Aomori (Northern Honshu) Fukushima etc.

. Sesaki group (primary school attached to Hiroshima University).

61. The importance of concentrating educational efforts for better understanding amongst Pacific Circle countries was emphasized.

Three major activities following the development of the conceptual framework were outlined.

(a) Ex-post surveys on attitudes of students towards Pacific peoples. (A summary of results from pupils of the attached secondary school to Ochanomizu Women's College, Tokyo was presented to the meeting.)

(b) Development of teaching/learning materials aimed at composing an integrated curriculum from the upper forms of primary school to optional forms of the senior high school (nine or ten years to 18 years). Drafts presented to the meeting in English translation were:

Unit 1 Map of the Pacific Regions Project

Unit 2 Planning Travels in Pacific Regions

Unit 4 Sailing the Pacific by Yacht.

(c) Production of film strips.

62. The scarcity of funds for translation, purchase of foreign materials and for testing materials was seen as a major difficulty for the effort.

Evolution of the work

63. Both development groups operate in association with NIER and have made good progress given limitations on funding, the need to establish links with participating schools in an approved way and the short timeline for development within the funding period. Whether the development groups can be brought into a unified pattern remains to be seen.

Future activities

64. NIER's plans are primarily in the area of completing the present development task.

65. NIER's continued participation in Pacific Circle development work will be contingent upon (a) continuing political and financial support from the Japanese Ministry of Education, (b) the future plans of the consortium of institutions and

their compatibility with CERI goals for the Consortium and (c) the relevance and appropriateness of proposed Circle project products to the Japanese educational system, structure and preferred curriculum development and teaching.

Maintenance conditions, stability and interdependence of levels

66. It seems likely that NIER's participation in the consortium of institutions will continue. In particular, it seems likely that support for NIER activity will continue so long as the common work programme of the Circle is regarded by the Policy Group as in the interests of mutual co-operation between Policy Group countries and in the interests of the CERI Governing Board countries as a whole.

67. It should be noted that the NIER work is carried out on the basis of project funding from the Ministry of Education. It thus has a finite duration. The work may continue, however, in the sense that it may be taken up by schools, in which case it may require some maintenance support, especially during the initial stages of implementation.

68. The maintenance condition most important to satisfy in the interests of stability of Japanese participation is that of the "official" status of the activity as part of Japan's commitment to OECD/CERI.

Emergent issues

69. Continuing NIER participation in the consortium of institutions depends upon continuing support at the Policy Group level. The official status of the activity as a CERI project is critical for its acceptance within Japan.

70. Differences between Japan and other Circle participants in education systems, language and culture will require either fairly substantial adaptations of Circle-produced materials for use in Japan or great sensitivity in the production of joint materials so that they can be used in Japan.

71. Funds for translation seem essential for continuing participation at a realistic level, especially as Circle work becomes more co-ordinated and integrated internationally (see Sections 3 and 5).

United States/North-West Regional Educational Laboratory (NWREL)

NWREL Structure and Function

72. NWREL was created under the United States Laboratories and Centres programme. It is governed by a board of representatives from the States in the North-West Region. While it is expected to contribute to educational knowledge and practice at a national level, its primary responsibilities are to the Region. Any activity undertaken by NWREL must be locally

justifiable. But NWREL does not have a service relationship with its Region to the extent that its products are automatically taken up by the Region. School districts in the Region are free to take up its products as they choose.

73. NWREL thus has national funding, regional, State and local funding, and contracts and grants from other agencies and foundations. Given these "constituencies", it would not be surprising if all its work were intranational in character. International R & D initiatives, in this situation, seem to demand justification in terms of intranational payoff. Against this background, it is clear that NWREL would have to make a concerted effort to justify and carry out international projects. Furthermore only low levels of participation in international work could be justified on existing funds; for higher levels of participation, funds would need to be secured from some granting agency for the purpose. The regional and intra national missions of NWREL thus constrain it from substantial levels of participation in international work in relation to its intranational work. Nevertheless, given the possibility of an international market for its products, and the prospect of a new dimension to its activities, NWREL could justify its involvement in the Circle.

74. NWREL's preferred model of curriculum development, to the extent that it has a unified approach, uses development teams which rely on consultation with potential users in the developmental process. As Rex Hagans of NWREL puts it, the "model" is best described as a set of "rules" for or expectations of NWREL staff engaged in the development of materials: (1) "deliver on time, deliver quality and do your job competently", (2) "design your project and its evaluation co-operatively with the people who are going to use it - don't develop first and then take it to them to see if they like it", (3) "developers and sponsors share goals - be 'in synch' with your funding agency", and (4) "work with agencies with the charter appropriate to the task" (i.e. the appropriate and competent authorities). Different curriculum development projects attempt to devise appropriate strategies for their contexts and tasks; in this sense, it is "eclectic" in terms of curriculum development models. Some features of NWREL's mode of operation mark it out as distinct from other educational R & D agencies in the Pacific Circle Consortium, however: it is dependent on raising specific funds for specific projects (unlike CDC which has general funds and allocates to specific projects more or less "internally", or NIER which is not so dependent on making "matches" between funding sources and potential curriculum development projects in its basic operation, or the New Zealand Department of Education which allocates funds to curriculum projects from its general resources), it is somewhat more "market-conscious" (having to recoup costs for products used beyond the North-West Region from sales), and it tends to work with a variety of specific sponsors for specific tasks, rather than depend on funds from one or a few principal sources.

75. In short, NWREL is more sensitive to questions of user needs and usefulness of its products as a marketing matter than some of the other agencies in the Consortium. This mode of operation and institutional structure favours work which is funded for specific purposes, "discrete" in the sense that it is enclosed in a specific, budgeted timespan, and "product-oriented", in the sense that the development team will not necessarily stay together or have long-term responsibilities for implementation (rather, a package, including evaluation reports, will carry some of the developers' accumulated wisdom and expertise after the project is complete). This set of preferences makes NWREL slightly different from most other consortium institutions, especially as it is a non-government rather than a government insitution and oriented to specific development tasks rather than carrying comprehensive responsibilities for curriculum in its country or State.

The Development Group

76. Between the first Tokyo meeting of the Consortium and January 1979, approximately $12,000 from NWREL's institutional budget was spent on planning and feasibility work related to the Pacific Circle. Since January 1979, further funds have been committed to the project. In the broad sense, this expenditure was approved by NIE as part of NWREL planning and administrative activity. The major pilot development work at NWREL was carried out by Sue Buel, who collected materials on food resources of the Pacific ocean as a pilot unit for a larger collection of resource materials for teachers on topics related to the themes of the common work programme of the Circle.

77. The development group at NWREL has been assisted by a panel of teachers who vetted the first resource unit. It has also participated in exchange of materials with other Circle participants.

Description of recent work in the Report of the Third Annual Meeting of the Pacific Circle Consortium, pp. 14-15

78. The NWREL felt that one useful approach to development within the Common Work Programme framework was to identify important, broad topical areas or "perspectives" and use them as organisers for the collection and further development of resource materials from as many nations as possible. They felt that the usefulness of this resource collection to teachers would be greatest across the many cultures and languages if it were not a tightly designed and planned instructional set of units which must inevitably reflect the cultural and national uniqueness of the developer. They thus designed a catalogue organisation for their project "Perspectives of the Pacific" to accommodate original sources and to reflect the different national/cultural perspectives of Pacific countries. Just sufficient teaching suggestions and units to serve as "connective tissue" and stimulate creative teacher use were included. Eight perspectives were identified: environment; transportation and communication; careers; recreation; politics and

law; food resources; mineral resources. Because external funds were not secured for the development during 1979, a single prototype package dealing with "Food Resources" was produced during 1979 by an instructional specialist working on a 25 per cent time basis. The trial version was presented to the meeting, and an invitation extended to Circle members to trial the package in schools within their jurisdiction between October 1979 and May 1980. Following May 1980, it is intended to revise the package in the light of field testing. The possibility was raised of merging the package with one of the units developed through the Curriculum Development Centre, because of a number of areas of similarity. A longer range intent is to seek funds to pursue the other topics in the initial series of "perspectives".

Evolution of the work

79. During its association with the Circle, the work of NWREL has become progressively more focused. General materials exchange with other Circle participants related to the NWREL topics for units to be developed within the general Circle themes. The pattern of development has followed NWREL's preferred mode of curriculum development. Having established the viability of the process and the resource package, there has been a slight pause in development activity as NWREL prepare for a new phase of Circle work. Working with other Circle participants, a content analysis has been undertaken to create a topical framework for a new development project.

Future activities

80. Future work for NWREL as part of the consortium of institutions seems likely to depend on the availability of major funding. Given its preferred mode of development, NWREL would opt for a joint project by the participating institutions which draws together subject matter experts in a range of areas related to Circle themes, curriculum development specialists and an international team of curriculum writers who can first specify and then develop resource materials for teachers and students. For NWREL, the funded project approach would seem to be a necessary condition for continuing participation at any significant level. Without development funds, NWREL could not continue to divert scarce internal resources into an independent curriculum project; without a demand for curriculum materials in areas related to Circle themes within the North-West Educational Region, NWREL could not justify producing units from within its own resources. Alternative courses of action are obviously available. NWREL can seek funds in its own right to contribute materials to a common pool of developed materials in the consortium of institutions, or it could seek funds jointly with other Members of the Consortium for a combined curriculum development activity. From NWREL's perspective, the latter approach seems more powerful.

Maintenance conditions, stability and interdependence of levels

81. In order to maintain NWREL participation in the consortium of institutions in a productive way, external funding seems necessary. Since the agency operates on the basis of funded projects, only very low levels of participation could be achieved without external funds.

82. If external funding for developments can be secured, a project team can be established to carry out the work. The group would be stable in the senses that it can conform in its work to well-developed strategies for curriculum development, evaluation and dissemination already used by NWREL. It could fit snugly into the broader canvas of development activities of the institution. Moreover, once materials had been developed, they could be disseminated through the contact networks by NWREL and have a fairly stable dissemination and implementation phase. The main instabilities in the situation relate to the uncertainty of funding, and to the somewhat ambiguous nature of the conceptual framework for the Common Work Programme. NWREL could continue its present Circle work on its own behalf as an institution; specific NIE "permission" is not necessary for NWREL to undertake such work. Good relations between the Policy Group level and the institutional level of the Circle are, of course, desirable from NWREL's perspective, they are not necessary.

Emergent issues

83. Continued NWREL participation in the consortium of institutions may depend upon the availability of external funding. If this can be secured for an individual NWREL project, then continuing participation would be possible within a loose confederation of development projects. External funding for a joint project to be carried out by all institutions may yield still higher levels of participation by NWREL.

84. Given the retirement of Dr. Fish from the Executive Directorship of NWREL, the question arises of the degree to which his internal sponsorship of Circle-related activities is critical to the work of NWREL in participating in the Consortium. The presence of Dr. Rex Hagans from NWREL at the September, 1979 meeting in Sydney suggests that individual participation in the Consortium is being spread within NWREL. It would seem especially important under these circumstances to formalise Circle participation through a common project which could institutionalise Circle work in NWREL.

85. Circle participation by NWREL could, perhaps, be enhanced if this kind of international work had higher priority within NIE. Given its present participation within the Circle and its excellent track record in attracting grant monies, NWREL would appear to have good prospects for securing a grant if NIE were to issue a request for proposals in this area. In any case, improved liaison between NIE and NWREL in the specific matter of international curriculum development could be beneficial to all parties.

United States/Curriculum Research and Development Group (CRDG)

CRDG Structure and Function

86. CRDG is part of the University of Hawaii. It is funded through the State of Hawaii, though it attracts Federal funds as well. In its curriculum development work, it has a non-governmental perspective, that is to say, it operates as an autonomous organisation preparing curricula which it must "sell" to schools. In reality, links between CRDG and the Hawaiian education system are extremely strong. Though CRDG operates as a service agency to the State, it clearly "custom builds" its products for the Hawaiian context and offers strong follow-up support. But CRDG's responsibilities are not those of the education system itself.

87. CRDG's primary constituencies are mostly in Hawaii: the State legislature, the State's education system, and the State's schools. It has broader responsibilities to the academic community as any university has, but this local base is an important feature in its structure. But Hawaii is a meeting place for cultures, and the Hawaiian perspective is inevitably intermingled with perspectives drawn from the Pacific as a whole. In this sense, CRDG's development work reflects and expresses a broader Pacific perspective. While the mainstream of CRDG activities is directed towards Hawaiian needs, many of its materials have a ready applicability elsewhere in the Pacific.

88. CRDG's preferred approach to curriculum development is, as has already been mentioned, a long-term approach, grounded in a view of knowledge and the disciplines (as communities of ideas) on the one hand, and in a realistic appreciation of the problems of curriculum installation and teaching practice on the other. Changing teachers and schools through curriculum change is seen as a slow and gradual process which requires subtle and sophisticated curriculum design rather than a "packaging" approach which purports to deliver good knowledge and teaching/learning resources rapidly and invites teachers to trust the judgement of the developers rather than their own professional judgement. CRDG's model is thus consultative in a strong sense: developers work with teachers in the field and follow up closely on implementation to learn how the materials must be modified to meet the requirements of long-term use.

The Development Work

89. Since the early days of its involvement with the Circle, CRDG has been involved in the curriculum exchange aspect of the Circle. Given its present range of Pacific-oriented curriculum materials and resources, CRDG's development work specifically for the Circle has been more at the analysis and planning stage than at the production stage. CRDG has spread Circle involvement among three of its senior staff: Art King, Frank Pottenger and Ted Rodgers. Between them, these three have considerable relevant expertise for Pacific Circle activities.

Description of recent work in the Report of the Third Annual Meeting of the Pacific Circle Consortium, pp. 13-14

90. In order to give the goals of the Pacific Circle Project a base of wide commitment and expression throughout the organisation, Pacific Circle activity has been embedded in the thinking and planning of the permanent staff of the CRDG rather than as a separate working section. The CRDG has defined common project work at three levels. Primary level projects are those stimulated by Pacific Circle participation. Secondary level projects are related to the themes of the Common Work Programme, but were started at an earlier time. Tertiary level projects were not started in response to Pacific Circle participation, are more tangential, but have significant elements dealing with Pacific Ocean area topics and problems. A grouping of CRDG activities at each of these three levels was discussed. Primary level projects included:

(a) Ocean Resources, Law and Politics

(b) Asian and Pacific Literature

(c) Music and Dance Repertoires of Asian and Pacific Peoples

(d) Movement and Interaction of Peoples in the Pacific.

91. The CRDG provided interchange with a number of Circle activities during 1978-79. Dr. Pottenger developed a model for adapting a national curriculum project by other nations, and discussed it in the context of a paper entitled "A Model for localising Environmental Management and Policy Studies for Secondary Curriculum and Its Implications for Multinational Curriculum Design Projects".

92. Project profiles for 35 CRDG projects were developed, using the CDC model, as illustration of the first phase of a plan recommended by Dr. Rodgers for facilitating communication between Pacific Circle Members.

Evolution of the Work

93. Given the long-term intensive approach to curriculum development preferred by CRDG, it follows that its work under present circumstances in the consortium is at a low level. A major development task requires major resources over a long period, and so CRDG has been unwilling to commit a substantial proportion of its own scarce institutional resources to Circle activities until the shape of the Common Work Programme has been well-articulated and an integrated design developed. Recent CRDG work on the Circle has involved a content analysis of present Circle curriculum resources as a basis for designing a better-integrated common curriculum and conceptual framework.

Future Activities

94. CRDG could become involved in an intensive common project. Indeed, given its preferred approach to curriculum development, it favours a major joint project involving all members of the consortium of institutions in co-operative development. But it is unclear as yet whether the joint work should (from CRDG's perspective) be directed at the specification of a common framework within which different participants could each produce teaching and learning materials for local use, or whether common products should be produced. CRDG is in a position to follow developments in either direction (and may prefer the latter course of action).

Maintenance conditions, stability and the interdependence of levels

95. CRDG is in a position to maintain its present level of commitment to Circle activities, but two kinds of conditions would be desirable for the maintenance of its commitment. First, given CRDG's style of operation, there is the precondition of the availability of tenured staff to participate in Pacific Circle development work; CRDG prefers to work on long-term development with deep penetration into education systems, which implies that tenured staff be available to oversee the project. Second, external funds seem necessary, at least to initiate development and refocus responsibilities and plans within CRDG. By and large, CRDG has not undertaken new development work solely for Pacific Circle purposes. Its main contributions have been in gathering its considerable resources of relevant developed material around the Pacific Circle themes and participating in the exchange and critical review activities of the Circle which have so far required fairly modest resources. Undoubtedly CRDG has made a large investment in the Circle through its staff members in terms of travel funds. From CRDG's point of view, continuing participation in the Circle probably depends on a strong common work programme which promises tangible yields both in Hawaii and internationally.

96. The CRDG team is itself stable, and its level of activity in the consortium has been fairly low but consistent. Given a major project, CRDG could probably put together a stable development project group for the purpose.

97. Links with NIE could be enhanced for CRDG by CERI promition of the Circle activity with NIE, and if NIE formally recognised CRDG's participation as part of the United States involvement in CERI. This could help to stabilize United States participation in the Circle, especially for CRDG.

Emergent Issues

98. More active CRDG involvement in the common work programme probably depends upon (a) the availability of tenured staff to oversee the project and (b) the availability of external funds for a major common project.

99. CRDG's curriculum development model, underwritten as it is with over a decade of experience in Hawaii, is likely to continue to attract CRDG's allegiance. It is different from the preferred models of some other participants; the negotiation of a common work programme at a more intense level of activity is likely to demand some concessions from other institutions in the direction of the "long-term", "deeper penetration" approach of CRDG. If a short-term project is preferred, CRDG may find it difficult to justify participation and either withdraw or maintain a watching brief in future activities. If the Circle activities remain at the level of a loose confederation of unilateral and bilateral projects, however, then CRDG would not find continued participation hard to justify.

United States/East-West Centre Culture Learning Institute (EWC-CLI)

EWC/CLI Structure and Function

100. The EWC is a national educational institution created by the United States Congress, incorporated under an international Governing Board. A large part of its funding comes from the Congress through the International Communication Agency of the State Department; other funding comes from the Asian and Pacific countries who participate in its programme and from programme cost-sharing, contracts and grants. It thus has supra-national as well as national allegiances and a supra-national as well as a national constituency. Its work is not, however, formally inter-governmental; it still tends to work by drawing together individuals with parallel responsibilities rather than parallel government agencies.

101. Given this set of constituencies, EWC's structure is well suited to Circle-style activities. Its mandate is somewhat different from the mandate of most other participating institutions, however, since its interests are primarily in facilitating (and in the case of this project within CLI, studying) processes of international interaction. Curriculum development per se is not its primary task. This distinction is an important one for the Circle. It allows the situation to arise in which the EWC sometimes appears to take a more muscular "managerial" role in the consortium of institutions than might be expected of a co-equal participant (since its particular expertise is in the facilitation of international co-operative projects). Moreover, this appearance challenges the expectations of those participating agencies who see the Circle primarily as a CERI activity and within their contribution to CERI's work, not as an independent activity.

102. EWC's model of development thus tends towards project activity based on assembling groups of people across disciplinary and national boundaries for specific common tasks. The application of findings is not a centrally-directed matter but rather the responsibility of individual participants in their own specific local context. The form of common project proposed for the Circle conforms to this pattern (the joint development of a common conceptual framework with independent development of materials and resources for local use). Facilitating this kind of work is the area of EWC's greatest experience and expertise: in procedural terms, this kind of project is best-suited to the expertise and facilities the Centre can offer. The model suits some of the preferences of other participants, but it is at odds with other preferred models of curriculum development in the consortium, especially those for whom face-to-face common work is not a prerequisite for co-operative development.

The Development Group

103. As has already been suggested, the development group in the CLI is interested as much in the operation of the consortium as in curriculum focus. The EWC could take on a study of the operation of the consortium, or even a clinical-developmental role through which it might help to identify impediments to joint work and help the Circle participants to remove blockages to smooth interaction.

104. A large proportion of the CLI staff have had direct or peripheral involvement with the Circle: since the January 1979 meeting of the consortium at the Centre, many staff members have become aware of its work. Indeed, the Circle meeting at the EWC came at a time when this project of the CLI was being designed, and the Circle programme seemed to present an unparallelled opportunity for concretely expressing some of the CLI's aims in co-operative practice. CLI staff have been working on models of curriculum development which might be appropriate in helping the Circle formulate its task of cross-cultural curriculum development.

Description of recent work in the Report of the Third Annual Meeting of the Pacific Circle Consortium, pp. 12-13

105. Activities related to the Pacific Circle programme are being carried out in the CLI's project "Problems in International Co-operation". The purpose of this project is to study the problems and processes involved in the management of international co-operative research and development projects. The project will examine and analyse key variables that characterise research and development work through international co-operation. The CLI hopes to produce management aids and educational materials which will help make people, especially project co-ordinators, to be more effective in such activities. A work programme for 1979-1981 was outlined.

In January 1979, the Institute sponsored an informal meeting of members of the Pacific Circle Consortium. The meeting was held at the EWC, Honolulu. As discussed above (2.1) two subcommittees were formed at this meeting both of which were chaired by members of the CLI. The work of these subcommittees formed the major part of CLI Circle activity between January and September 1979.

A planned CLI activity for March 1980 is to bring Pacific leaders to a conference to address Pacific Island development issues. It is anticipated that the data bank of major background papers, conference materials and the subsequent action programme, will be a valuable source for members of the Pacific Circle Consortium.

Evolution of the Work

106. During the life of the consortium of institutions, the EWC has taken an increasingly active role. It has proposed and hosted international meetings of consortium members and curriculum developers, and has drawn up proposals for funding of a common project. To some extent, these initiatives have met with ambivalence in the consortium: to some, it has appeared that the emphasis on intense common development activities is premature, distracting attention from the intranational obligations of participants incurred in the unilateral projects already underway, to the others, the EWC proposals have been especially attractive as a way of demonstrating the principle of international co-operation and understanding in the precedent of intense face-to-face, co-operative development work. Nevertheless, the CLI has continued to take a significant role and to increase its level of consortium-related activity. In recent months, CLI staff have played an important role in formulating a structural proposal for the consortium of institutions.

Future Activities

107. In the light of the formalisation of the Circle under its charter, and given the prospect of a common project, the Circle as a whole has tended to become more coherent as an entity, especially at the institutional level of the Circle. EWC as a multinational agency is able to provide some of the facilities and expertise needed for international work and so helps to bind the identity of the Circle at the institutional level.

Maintenance conditions, stability and interdependence of levels

108. It is in the interests of the CLI that the consortium take on a common workshop-based project so that its own goals and procedures can be more fully expressed and utilised. An expanded common work programme could be handled from the EWC's point of view within the present capacity of its staff and in terms of its likely facilitatory role (if not a direct curriculum-development role) assuming funds can be found for the project.

109. It follows from the present role and function of the CLI that interdependence between levels of the Circle are presently defined (against the background of CERI sponsorship) of less consequence to CLI than to some other participating agencies. Nevertheless, it would be beneficial to the consortium of institutions as a whole if relations between the United States Policy Group representative (NIE) and other participating United States agencies could be strengthened. This might have the effect of ratifying the consortium of institutions as a CERI activity, and facilitate continuing involvement for other agencies under the CERI umbrella.

Emergent Issues

110. EWC involvement in the consortium of institutions may be enhanced by formalisation of the consortium structure and by a reshaping of the common work programme in the direction of a workshop-based common project. This may incur costs to some other institutions.

111. EWC facilities and expertise are in the management and co-ordination of international development work, usually involving experts or policy-makers in transient projects which are translated into action independently by participating agencies. This model may clash with some views of the Circle as a CERI activity, and with some views of the curriculum development tasks of the Circle.

112. Recognition by NIE of the EWC role in the consortium may help to cement vertical relations between levels of the Circle, to the benefit of the Circle as a whole, but especially to the benefit of those agencies participating in Circle work primarily as an expression of their contribution to CERI international work.

Canada/Council of Ministers of Education (CME)

113. Canadian participation in OECD/CERI is through the CME; representation on the CERI Governing Board is by rotation among Provincial Ministers or their representatives. Continuity of representation is therefore a problem with respect to Canadian participation in CERI activities. The Pacific Circle has not been exempt from these difficulties.

114. At the March 1977 Circle meeting in Honolulu, Canada was represented by Dr. D. Larder of the Department of Continuing Education. At the April 1978 Tokyo meeting, Mr. W.B. Naylor, Director of the Curriculum Development Branch, British Columbia Ministry of Education attended as an observer. Canada was not represented at the informal Circle meeting in Hawaii in January, 1979.

115. In mid-1979, there was discussion among Circle participations about a Canadian institution which might collaborate in developmental work at the level of the Consortium of Institutions. Authorities in British Columbia were apparently following the progress of the Circle, but a potential participating institution had not been identified.

116. At the Third Annual Meeting of the Pacific Circle Consortium, a Canadian representative was named:
Dr. Harry K. Fisher of the Ministry of Education in Ontario.

SECTION III

TYPES OF ACTIVITY EMERGING

117. Over the years 1976-1979, the activities of the Consortium as a whole have evolved. That is to say, disparate ideas and activities have been developed by participants (variation) and these have undergone processes of selection (through discussion, negotiation and endorsement and ratification of selected features); and there has been a reproduction of Circle-related activity over time (in continuation of the development work unilaterally, bilaterally and multilaterally).

118. In this section, the emergent activities of the Consortium will be considered in four general areas: (1) Consortium organisation, (2) the conceptual framework, (3) communication, and (4) the proposal for a common project and the continuation of current initiatives. That is, the main current and foreshadowed activities of the Consortium will be used as a basis to consider its evolution.

Consortium Organisation

119. Participants believe that the Consortium has passed through (or is passing through) three main developmental stages notionally labelled "independent activity", "parallel play", and "common work". It might be more accurate to describe these stages in development of the Consortium as "parallel activities", "co-operative work" and "integrated work", since the first notional stage of independent activity is a precursor of consortium work (is conception an event in one's own life?) and the last notional stage of "common work" actually contains two distinct levels of commonality: co-operation and integration. The development of formal organisation provides a self-regulatory framework for co-operation - it converts the contending self-interests of participants served by parallel or loosely co-operative work into integrated community self-interests subject to endorsement and ratification by the Consortium.

120. This is not to say, of course, that particular initiatives of a parallel or loosely co-operative kind will not continue. On the contrary, participants expect them to do so. Rather, it is to assert that the Consortium now has the right to endorse (or not to endorse) particular activities as activities of the Consortium. In this sense, a new regulatory and integrating mechanism exists.

121. At the September, 1979 Annual Meeting, Dr. T. Rodgers of CPDG presented a list of notional states ranging between weak and strong levels of commonality. It may be of interest to reproduce them here to indicate some of the implications for curriculum development of different levels of commonality in working processes and developed products.

Figure 1

Curriculum development processes and products likely to be generated under different levels of commonality in PCC work

← Strong ——— Degree of commonality ——— Weak →

"One for All, All for One" Model
Common curriculum, centrally developed, same for all students.

"Pie-Graph" Model
Each agency makes a distinct and separate contribution within a common, agreed curriculum plan.

"Synopticon" Model
Grand structure and organisation with joint curriculum.

"Leaky Syllabus" Model
Framework agreed, implemented flexibly by local agency according to local needs.

"Lender-Borrower" Model
Materials developed by one agency used by others.

"Swap-Shop" Model
Ideas and materials exchanged, organised according to users' needs.

"Theme Book" Model
Ideas manual with support materials, bibliographies.

"Mice in the Maze" Model
Study of international co-operation processes.

"Coffee Klatch" Model
International get-together for its own sake.

122. In discussion of Dr. Rodger's categories, there was some agreement that the Consortium was working in the area of the "leaky syllabus" and "lender-borrower" models.

123. At the beginning, the activities of the Consortium could not have been described according to this system. There was doubt among participants about the degree of commonality to be achieved. There were activities underway in most agencies which could be brought into the ambit of Circle work and exchanged ("lender-borrower" model), to be sure, but these were conceived and developed independently of the Consortium. Only with the development of a common programme of exchange could these enter the range of Consortium activity (rather

than independent initiatives). Development work, as distinct from exchange, was to take place in some parallel form. (Even exchange could be described as a "parallel" activity, since at the beginning exchange did not feed independent developments directly).

124. From independent activity, then, the first stage of distinctly PCC activity was parallel activity: independent initiatives proceeding in a common direction.

125. From parallel activity, co-operative activity emerged. The co-operation extended beyond a common direction for the work: the work of one agency began to embody the ideas and products of work from other agencies. Exchange became more real and more productive; the articulation and exploration of the common conceptual framework became more essential. In co-operative work, the ideas of the Consortium as a group began to fuel independent work, and independent work began to reflect the influence of co-participants. It is true, however, that different agencies participated in these exchange and influence processes to different degrees. The work of one or two agencies has been clearly affected by the co-operative process; one or two others have remained relatively unaffected.

126. The emergence of the final stage of integrated activity has been possible partly because the influence processes of co-operation have been fruitful. But there has been an element of caution in the step from co-operation to integration. For one or two agencies, co-operation has been real and has been quite sufficient; greater co-ordination did not seem necessary. To others, integration has always been the aim. But integration has been seen under two different aspects: integration of development work, and integration of production. Integration of development work requires only co-ordination of the work of individual agencies within a common framework; integration of production requires a joint development task and joint production processes. The issue of which form of integration should characterise the work of the Consortium remains unresolved. The proposed common project represents integration of production; the continuing common work programme represents integration of development work.

127. The events of the Occasional Meeting of the Consortium in Hawaii (January, 1979) and the Third Annual Meeting (Sydney-Canberra, September, 1979) led, in effect, to a compromise between the alternative views of integration. Both the proposed project and the continuation of the common work programme were endorsed.

128. The Consortium has moved, however, to a stage of integration. At the January, 1979 meeting, the "Brownell Subcommittee" was formed to develop a charter and constitution for the Consortium. The proposed charter and constitution were modified and amended at the September, 1979 meeting, and accepted as a formal structure. Other agreements ratified the common project proposal (developed by the "Bickley Subcommittee") and the continuation of the common work programme.

The work of the Consortium thus achieved organisational integration (incorporating integration of development processes) and the proposed project allowed for an element of integration of production, provided that funds could be found for the work and satisfactory production processes established.

129. The interests of some participants are best served by integration of development work; the interests of others are best served by integration of production. Those agencies best served by integration of development work are those with development funds at their disposal (New Zealand Education Department, CDC, and, to some extent CRDG). Those best served by integration or production are those for whom project funds are necessary if they are to continue to participate in a substantial way (EWL/CLI, NWREL, NIER).

130. The common project may be the only means by which these latter agencies can continue to participate in the Consortium.

131. The development of the charter and constitution is thus a significant step - it is no mere expedient. The procedures they establish for the election of officers, for governance and administration, for endorsement of programmes and projects as "official" activities and for regularising new members are all significant in formally defining the community self-interest, on the one hand, and for regulating the communication and contact between the Consortium and other agencies on the other.

132. The "approval" mechanism, for example, allows the possibility that unilateral, bilateral or multilateral activities may be endorsed (or not endorsed) by the membership. This may have a powerful legitimising effect and thus exert a significant influence on new developments, whether unilateral, bilateral or multilateral. For the moment, it also provides a mechanism for endorsement of unilateral and bilateral work which does not depend upon integration of production - to some participants, this may be among the most significant short-term values of the charter and constitution.

133. The question of regulating membership is also significant. It is so in three ways: first, it gives the membership of the Consortium of institutions the right to propose new members for approval by their national authorities, second, it formalises the membership process so that new members can be bound to the PCC charter and constitution; and third, it poses the problem for OECD/CERI about relationships with non-Member States (of OECD). The question about the potential involvement of institutions in the Asian Programme for Educational Innovation and Development (APEID) is obviously relevant here. OECD/CERI Secretariat advice that some such relationships may be handled within the OECD policy for relations with non-Member States was encouraging to participants, but further emphasizes the rift between the institution-level and the Member Governments perspectives.

134. To sum up, there has been an evolution of the consortium through the developmental stages of parallel activity, co-operative activity and integrated activity. There are some issues yet to be decided about the nature of integration most useful to the Consortium as a whole (integration of development vs. integration of production), but the Consortium has clearly reached a level of integration where some formal powers exist for self regulation.

The Conceptual Framework

135. During the life of the Consortium there has been a gradual evolution in the conceptual framework which orients and guides the common enterprise. Aims and objectives were specified in the earliest Pacific Circle documents (e.g. Pacific Circle Paper No. 1, 1976), and these have been elaborated and developed in subsequent papers and reports.

136. A series of general concerns, a view of education for international understanding, a number of preferred teaching/learning strategies and a series topics like trading, urbanism, use of the ocean, etc., have gone through development, discussion and agreement.

137. A general framework of concerns, and the propositions which represent an attempt to codify these (almost as a social philosophy) has been elaborated over the years 1976-1979. It reaches a fairly high degree of elaboration in the CDC Manual. Earlier forms of the framework and propositions in Circle documents seem to prefigure the articulation of this view, it seems likely that many of the elements in earlier documents were developed from CDC, though elaborated and revised in Consortium meetings.

138. One piece of evidence in particular seems to support this CDC-origins thesis: there is a new twist to the general framework in the latest Circle documents - The Report of the Third Annual Meeting and the proposal for a common project. This new twist reflects the group's views on a discussion paper prepared by Dr. Frank Pottenger of CRDG presented at the Third Annual Meeting. The Pottenger paper emphasized policy issues and a closer focus on the Pacific Ocean as a common element; it does not overturn former perspectives so much as take a new perspective on them.

139. In contrast to the elaboration and generalisation of the conceptual framework as a whole, there has been a narrowing of focus in discussion of fruitful areas for curriculum development work over the period. In the earlier documents, a wide range of potential areas (including themes such as urbanism, energy, ethnic differences and similarities) was to be explored. The explorations have apparently yielded a progressive sharpening of focus: certainly some themes have tended to become background rather than foreground. In Tokyo in 1977, the participants agreed to pay special attention to the two main themes of trading and use of the ocean. By 1979, at least for the

purposes of the proposed common project (and at least one other major bilateral activity - the CDC/NWREL joint publication possibility), the focus had narrowed to wise use of ocean resources.

140. By mentioning the fact that the focus has narrowed, no criticism is intended. Marking out a substance or domain for development seems essential to establishing a productive work programme. The significance of the fact is rather more obvious: Members have been required to negotiate an appropriate domain from among a range of potentially-fruitful domains, and the topic chosen reflects not only the common thread in past unilateral and bilateral development work (as argued in the project proposal) but also the emergence of a bloc of interests in the Consortium. The chosen focus lends itself to interdisciplinary work, to be sure, but it also reflects a science-education bias not as evident in some former developments which were more culturally-based. There is at least some support for the hypothesis that this focus also reflects the policy-oriented and science-education interests of the non-governmental agencies within the Consortium.

141. Finally, the development of the conceptual framework also reflects changes in the preferred pattern of work for the Consortium. Where earlier documents emphasized the need to work from geographically-distant bases, the proposed work offers the prospect of more sustained work from a common meeting site. Other developments will continue from the individual institutions, and improved mechanisms for communication will undoubtedly help in the co-ordination of developments and in exchange of ideas, materials and resources. The proposed project will involve substantial further development of the conceptual framework by an international team around the chosen focus. This may have a significant effect on later developments. At the very least, the development of the conceptual framework in the two kinds of integrated work presently foreshadowed (integrated development work and integrated production) highlights the distinction between two contending images of the Consortium and its educational tasks: integration through a common forum and framework vs. integration through common tasks and production processes.

Communications

142. There has been an evolution in communication processes in the Consortium. The means of communication have remained more or less the same (though communication via the Peacesat satellite seems to have been rather unsatisfactory for general "meeting" purposes), but there has been a refinement in the kinds of messages which have been relevant.

143. Dr. Rodgers of CRDG undertook an analysis of communication and exchange for the Consortium and reported to the last Annual Meeting. A wide range of kinds of messages and media were discussed.

144. Several agreements of the Third Annual meeting were particularly relevant here. In the general area of "communication and information exchange", four main agreements were reached: first, that members would create a project information exchange (modelled on the CDC "Project Profiles"); second, that a common category system be adopted to facilitate exchange and cataloguing of potential resource materials; third, that a record be accumulated of Consortium personal and professional contacts and fourth that a monthly Consortium news-sheet be produced to keep participants abreast of activities in member agencies.

145. These agreements suggest that the Consortium has reached that stage in its development where communication needs to be somewhat regulated - both in the sense of being made regular and also in the sense that it be co-ordinated so that participants have open and ready access to relevant developments around the Consortium.

146. Thus the evolution of communication patterns in the Consortium provides further evidence of its developing self-regulation and the increasing definition of the substance of its development tasks.

The Proposal for a common project and the continuation of current initiatives

147. The development of the proposed common project "Wise Use of Ocean Resources" provides further evidence of the evolution of Consortium activities. This "common project" should be distinguished from the earlier "pilot project" referred to in the earliest Circle documents, and which developed into a "curriculum materials and processes project" (Pacific Circle Paper No. 2, March 1977). This was conceived as part of an "agreed work programme" for the Consortium (Draft Report of Honolulu Meeting, 7th-10th March, 1977). By October 1978, the Consortium had begun to refer to its work both in terms of the wider "work programme" and the "common project". (Pacific Circle Common Project, draft: October, 1978; final: December, 1978).

148. The common project consisted in co-operative development of the kind outlined in the section on "Consortium organisation" above.

149. Increasingly, however, the distinction between the work programme and the common project became blurred. Work under the aegis of the Consortium began to be referred to (especially in discussions rather than documents in which the labels were somewhat more carefully applied) as the "common work programme". The label "common project" began to be used to refer to an integrated activity, probably an integrated production activity (as distinct from an integrated development process activity). Several proposals or proposal drafts have been circulated in the Consortium as proposals for an integrated activity which

was to become either the basis for future Consortium work or an element of future work. There was, and is, some jockeying for position between these two perspectives.

150. The EWC/CLI has on two major occasions had major responsibility for drafting a common project proposal. The first of these, in 1978, seemed in the end to be untimely: though elements of the proposal received support, it could not be endorsed as the major platform for future work. The second, developed by the "Bickley Sub-committee" of the Consortium was prepared between the January and September meetings in 1979, and endorsed at the latter meeting as a proposed activity of the Consortium.

151. As has been indicated elsewhere in this report, the question of the common project in its later integrated sense is crucial. Its priority is a matter about which participants in the Consortium disagree. For some, it is very close to essential as a basis for future participation (especially non-governmental agencies needing external funds); for others, it threatens to "freeze" the evolution of the common work programme as a whole, even perhaps to demand such an intense level of activity that past Circle work and its attendant obligations may be undermined (especially governmental agencies funded on the basis of their curriculum development).

152. Following a summary of decisions and agreements in the Report of the Third Annual Meeting (Sydney/Canberra, September, 1979), Skilbeck used the prerogative of his Chairmanship of the Consortium to comment on the issue:

> The decision we appeared to reach is that the present programme should continue to receive priority, but that preliminary, exploratory steps be taken to test the feasibility of launching the phase II project late in 1980 or 1981 ... The financial requirements for the present work programme ought to be met as a top priority, viz., funds for translation and to assist for attendance at the 1980 meeting in New Zealand. In my communications with CERI regarding a joint approach to funding agencies I am emphasizing that funds should be sought first for these two purposes.
>
> (p. 4)

153. It should be emphasized that, for at least some participants in the Consortium, the common project rather than "the present programme" seems essential. For these participants, the common project is a natural extension of the programme of work to date. Moreover, the proposal for the common project has been amended to include at least some of the elements referred to by Skilbeck.

154. Where, then, does the problem lie? First, there is the issue that those agencies (of which CDC is one) which have already undertaken substantial development work must carry it through to completion and support its dissemination and implementation. Obligations have already been incurred by these agencies within their own educational systems, and these must be honoured. But there is a second line of reasoning which may lead some agencies to prefer integrated development process work to the integrated production work envisaged in the thrust of the common project proposal. This line of reasoning may be discussed within the ecological metaphor of a "monoculture": an ecology which is dependent upon a unitary, highly-selected gene pool and which is vulnerable to predation, changes in ecological conditions and degeneration. In common sense terms, it is the ecological equivalent of "putting your eggs in one basket".

The "Monoculture Problem".

155. The present work programme of the PCC contains many diverse elements contributed by different participants, interacting in diverse ways and evolving from a wide background of ideas and resources. Work produced within such a programme may be expected to be robust because tested out under a wide variety of naturally-occurring conditions. Curricula developed from this foundation must be generated with a particular eye to the circumstances of local implementation, yet they should be transferred from site to site, to see whether and how they will "take", adapted to local conditions, and allowed to continue their evolution through interaction with local ideas, circumstances, resources and cultural styles.

156. If the work of the Consortium becomes less diverse to the extent of becoming dependent on one major "strain" of work, however, things might be different. Though tested under a variety of conditions and developed for robustness (as far as possible in a limited time), the very unity of the work may become its undoing. It may fit present circumstances, but not changing patterns in education or educational systems; it may work in test sites with collaborating teachers, but not with teachers in general; it may become a kind of orthodoxy and by its nature provoke alternatives.

157. The problem of monocultures is that they are dependent on stability of conditions, they are vulnerable to change, they often require artificial breeding programmes to maintain the robustness of the gene pool, and they put at risk the wider ecology into which they are introduced.

158. The question is "can the common project of the PCC be thought of as a monoculture"? In some senses, an affirmative answer might be given. It does depend on the "hothouse" development, it may well introduce a conceptual unity which reduces the diversity of ideas about the Pacific, it may be taken up initially with enthusiasm but become vulnerable with the passing of time and without a strong support programme.

But there are also good reasons for saying it is not a monoculture: it may not be so unitary in its conceptual scheme as to deny diversity, it may be sufficiently open to adaptation on-site that it does not become vulnerable, and it may not in any case be like a single "strain" in the ecological sense.

159. Nevertheless, there is a problem for the Consortium that too narrow a band of activities may mean that all its eggs (resources) will be in a single basket. The Consortium may stand or fall on the basis of one major activity. To some participants, the risk is too high; for others it is not.

160. The overall workplan of the common project as presented in the proposal suggests that the aim of the activity will be to incorporate diversity of perspectives, not to synthesise it out of existence. It should represent different cultural and disciplinary perspectives. As such the proposed activity is not, metaphorically, a monoculture. On the contrary, it might be seen as a source of diversity and interaction.

161. The point here is not to make the claim that the proposed common project is (or is not) a monoculture. Rather, it has been to attempt to explicate, through metaphor, the reasoning which leads some participants to favour the common project as the basis for evolution of the work of the Consortium and others to see the general programme as the most secure basis for continuing evolution. In summary, the arguments hinge on several key issues: for some participants, a major funded project seems the most secure way to ensure continued participation, while for others it does not; for some participants, the best in the aspirations of the Consortium may be both modelled by and embodied in the proposed common project, while for others the obligations of the past must be honoured and evolution must be slower; for some, the proposed common project represents a threat to the diversity and richness of interaction already evident in the present work programme, while to others the present programme achieves too little because the nettle of close co-operation in integrated production processes has yet to be grasped.

162. The timing of steps towards the proposed common project is crucial (as Skilbeck points out in his comments on the summary of decisions and agreements cited above), but perhaps for a different reason. Waiting too long to embark on the common project may undermine the basis for participation in the Consortium for some agencies; embarking on it too soon may undermine the basis for participation for others. The events of the coming months may decide which image of the Consortium will survive - though perhaps skilful diplomacy will allow the two images to continue to exist. The history of the Consortium suggests that diplomacy rather than confrontation will carry the day.

SECTION IV

CREATING THE CONDITIONS FOR SURVIVAL

163. In a paper on the organisation of living systems, Varela, Maturana and Uribe(1) distinguished between "autopoietic" and "allopoietic" systems. "Autopoiesis" is a form of organisation characteristic of all living things. In such systems, the interactions of the system produce the components of the system itself and thus sustain its capacity to continue functioning as a system. Put simply, the organism moves, eats, metabolises food and develops so that it can sustain its biological integrity and continue to move, eat, metabolise its food and develop. (At the species level, variation, selection and reproduction work autopoietically). Autopoiesis is thus a biological form of homeostasis "in which the critical variable that is held constant is that system's own organisation"(2). By contrast, an "allopoietic" system is one whose products are not the components of the system itself. Most man-made systems are of this kind; for example, by its functioning a car does not produce its own components; the production processes by which cars are produced are independent of the car itself.

164. This analogy is a helpful one as we consider the development of an institution like the PCC. The question we want to ask (and answer) is "can the PCC become self-sustaining"? The language of autopoiesis/allopoiesis allows us to address this question. The PCC may be regarded as self-sustaining when its interactions create the conditions for its own survival.

165. At the moment, and in former times, the PCC has not been self-sustaining. It has expended resources from other institutions (the processes of its production and development have been relatively independent of its own functioning) and, conversely, it has not yet been able to create the conditions for its own survival by its own functioning. But the events of the last year suggest that the PCC may be approaching a state where it can achieve autopoiesis - a kind of "critical mass" or "lift-off" in the survival sense. It will do so when it can regenerate the conditions for its own survival through its functioning.

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(1) Varela, F.G. Maturana, H. & Uribe, R.B. Autopoiesis: The organisation of living systems, its characterisation and a model. BCL Report No. 239, Biological Computing Laboratory, University of Illinois at Urbana-Champaign, n.d.

(2) Stafford Beer, "Autopoiesis", in R. Abramovitz et al. (eds.) Cybernetics of Cybernetics. BCL Report No. 73.38, Biological Computing Laboratory, University of Illinois at Urbana-Champaign, 1974.

166. The conjecture that the PCC may imminently achieve autopoiesis is plausible (a) because the work of the PCC is now more clearly specified, (b) because the Consortium has begun to develop mechanisms for self-regulation in its work, (c) because the conditions for maintaining the work are now clearer to participating agencies, and (d) because the Consortium is now seeking funds on its own behalf and will thus be in a position to regulate its exchanges of resources to ensure its own survival. In the short term, this may be achieved by a grant of funds to the Consortium, but it may not achieve further funding; in the long term, it must have the capacity to continue receiving grants and to attract further grants.

167. Such an analysis does not demand that the PCC be totally independent and able to survive under any conditions; on the contrary, it demands only that it find a niche in the world of educational research and development where its products are valued and sought. An institution like NWREL has achieved this state, as have many of the participating agencies of the Consortium. They are interdependent with the educational and governmental systems which support them, not entirely independent of them. Yet they are able to use the resources they generate not only to replicate past forms of work, but also to adapt to changing conditions. Since they have a reserve of institutional discretionary resources, they can produce new (variant) kinds of work which can undergo selection in the "market" for their goods, and they have sufficiently well-articulated organisational arrangements to be able to maintain themselves over time (reproducing the organisation itself over-time through socialisation of new members and the like, rather than merely replicating past work).

168. Can the PCC achieve autopoiesis? In the analysis that follows, it will be domonstrated that it may well do so. In a later section, threats to its achieving autopoiesis will be considered.

The conditions for survival

169. The PCC is a "unit of interactions"(1). It interests in specified ways with other entities. It has a finite "domain of interactions" which consists of all of the qualities of interaction of which it is capable. It can co-operate in the production of curriculum materials, it can engage in co-operative work, correspond with other agencies, exchange curriculum materials, influence the expenditure of institutional resources, and the like.

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(1) Maturana, H. The Biology of Cognition. BCL Report No. 9.0, Biological Computing Laboratory, University of Illinois at Urbana-Champaign. 1970. The terms of the analysis presented here are due in large part to the work of Maturana, a Chilean physiologist.

170. As an autopoietic system, the Consortium will need to expend its resources in such a way as to maintain its own functioning. It will have to maintain its integrity as a system. This will require that it maintain its characteristics as a functioning structure, viz., its wholeness, self-regulation and transformation(1). Its wholeness refers to its integrity as a unit of interactions (having the requisite structural and functional characteristics for survival - some such characteristics have been listed in the preceding paragraph); its self-regulation depends upon its having the capacity to order its work internally (to delegate tasks, to regulate the work of participants and its production processes generally, and to maintain itself through internal organisation); and "transformation" refers to its capacity to reorganise its structure and function to adapt to changing conditions.

171. Living systems interact with their environment in order to maintain their basic circularity - the cycle of metabolism, growth and replication (e.g. replacement of cells) upon which their integrity as entities and hence their survival depends. The PCC, as a system, is developing its means of "metabolism" - the processes by which the "nutrients" available to it (resources, available expertise) are built into "living matter" (its working structures). But it is still growing towards the state where it can be relatively autonomous and become complete enough and flexible enough to attract these resources and incorporate them into its own functioning structures. It has established its work patterns (curriculum materials exchange, communication mechanisms, procedures for calling meetings and organising its activities) to such a point where it can reproduce its activity over time. But, as has been suggested, it is not yet at the stage where it has the established resource base to transform itself adaptively (by generating variant forms of work, finding new funding sources, etc.) in the service of its own survival. It depends for these transformations on the autonomy of its constituent participating agencies and the working-out of their independent self-interests.

172. Only when the community of self-interests formed by these constituent agencies reaches the point at which the interests of the Consortium can be considered independently of those of the participating agencies, i.e., when the participants are themselves instrumental to the Consortium (or replaceable in the Consortium) will the Consortium have developed a basic circularity of its own. The formal charter of the Consortium provides the mechanism for this "instrumentalisation" of participant agencies; as yet the viability of the charter as a means of sustaining the identity of the Consortium over time remains to be tested.

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(1) Wholeness, self-regulation and transformation are the basic characteristics of a structure. See Piaget, J., Structuralism, London: Routledge and Kegan Paul, 1971.

173. This analysis suggests that the following attributes of the Consortium are essential for its becoming self-sustaining.

Attributes essential for the development of internal structure and function

174. The PCC must develop an increasing sense of wholeness (its integrity as expressed in its basic circularity), self-regulation and transformation. The structural preconditions for this seem to be:

(a) that it develop adequate orienting and communicating mechanisms and procedures - e.g. that it develop an increasingly precise sense of what each institution can provide in the common work, that it have known centres or foci for its activity, and that communications networks exist to allow exchange of ideas, materials, skills, resources and experience;

(b) that it develop integrating mechanisms and procedures - e.g. evaluation mechanisms, a conceptual framework, a sense of its historicity as represented in its annual reports and the charter and constitution, organisational arrangements for co-ordination and management of the work (including specification of tasks and allocation of responsibilities), and an increasing commonality of understanding about purposes and the problems to which the PCC is the solution; and

(c) that it develop production and distribution mechanisms and procedures for its curriculum development, and dissemination tasks.

175. Internal structure and function develop with the development of a basic circularity unique to the tasks of the PCC. This is achieved in metabolic processes by which resources are converted into products or new mechanisms and procedures, in patterns of growth and in replication of structure and function to maintain the integrity of the whole.

Metabolic conversion processes

176. First, the PCC has developed processes which allow communication and common orientation. By these processes, it has been possible for individual institutional missions to be co-ordinated into increasingly common activity. The development of professional networks internally to the Consortium has allowed individual institutional ideas to be converted into common tasks. Processes for communicating, meeting, and exploring individual and common commitments, and for exchanging ideas, materials and experiences have promoted the development of (a) increasing mutual recognition and understanding, (b) mutual awareness of purposes and the available means to attain them, (c) an increasing commonality of tasks, and (d) a sense of reciprocity - a give and take between participants for the common good.

177. Second, the PCC has developed integrative processes which create and maintain the community self-interests and sense of corporate identity of the Consortium. These processes convert the disparate and contending self-interests of the Consortium into community self-interests. Awareness of the whole range of PCC activity has helped to give member institutions a clear sense of how they fit into the common programme; increasing formalisation of structures has helped members to reach a clearer understanding of how the Consortium operates and their instrumentality to the common tasks, increasing awareness of problems within the Consortium and in its external relations has helped Members to understand how it must be developed and transformed to become more self-sustaining; describing and documenting the unfolding history of the Circle has helped members to form a sense of its identity through time and through transformations.

178. Third, the PCC has begun to develop and co-ordinate curriculum development and dissemination mechanisms and procedures. These dimensions of its productive capacity are essential to the sense of utility and potency of the Consortium. Perhaps the most pressing task has been to find (within its own resources and/or the resources of participating institutions) the means of curriculum production and the means for distribution or marketing of its products. Over time, it must develop and co-ordinate processes for using funds, finding new curriculum resources, finding staff with relevant expertise, devising work patterns appropriate to international work, and generating products recognisable as originating from the Pacific Circle activity. And then it must organise mechanisms and procedures for marketing these products so they will return resources to the PCC.

Growth and development

179. In order to achieve "lift-off" as a self-sustaining organisation, the PCC must organise processes for "learning"; for its growth and development as an entity.

180. First, members must continue to develop more precise recognition of one anothers' contributions within the framework of the common work programme, more precise specification of commonalities and differences in the community of self-interests, and increasing reciprocity in communication and exchange. This is being achieved in the growth and development of the communication network between members. Clearly, evaluation is crucial here as a feedback mechanisms which helps to articulate communication problems and create the possibility of learning from communicative experience.

181. Second, participants have needed to organise processes which allow increasing integration of the PCC common work programme. Here again, evaluation has been, and will continue to be, significant. Increasing integration has become evident as the Consortium has moved from independent individual activity to "parallel" activity, and from "parallel" activity

towards co-operative and integrated work. It is also evident in the moves from unilateral to bilateral and multilateral activity. To achieve this, mechanisms and procedures have been developed which maintain productive interactions between participants, which generate and maintain joint commitment, which help to achieve increasing levels of self-regulation for the Consortium as a whole, and which reinforce a sense of corporate identity.

182. Third, Consortium participants need to organise procedures to foster the growth and development of productive capacity and the capacity to "market" products. This may be achieved by developing direct or indirect mechanisms and procedures for "market viability" - directly, by the capacity to generate products as a Consortium (rather than as individual agencies) which can be sold and thus return resources to the Consortium, or indirectly, by making products available which create "visibility" for the Consortium and thus allow it to attract further grants. Productive capacity may also grow as the Consortium develops increasingly robust production procedures in (for example) specialisation of production functions, task-sharing, the identification and proceduralisation of problem-solving heuristics, and the like. Similarly, it must develop dissemination and marketing processes and procedures. Beyond these basic capacities, however, it is essential for the Consortium to develop adaptive capacity in production and marketing - the capacity to generate variant products, work patterns, communications networks and integrative mechanisms in the light of environmental response to its structure, functioning and products.

Replication of structure and function

183. In order to maintain its integrity as a structure over time and through transformation, the Consortium must be able to replicate past patterns of interaction as these are appropriate to new conditions. This is beginning to be achieved by formalisation (e.g. in the agreement to the charter, and in recording agreements, tasks and responsibilities) and by proceduralisation. Agreed, explicit procedures for communication, exchange, membership, integration (management, co-ordination), production and dissemination of products all allow participant agencies to recognise in specialised, particular acts the functioning of the Consortium as a whole - the performance of such acts is interpreted within the agreed framework of Consortium structure and function.

Attributes essential for the development of external relations and interaction

184. The development and integration of internal structure and function has its external counterpart. As the participating agencies order their interrelationships and interactions with one another, they must also order their relationships with external agencies and conditions.

185. First, for the purposes of the Consortium, participating agencies must be able to identify other agencies with which the Consortium may develop productive relations. In particular, these are funding sources, potential users of its products and potential member institutions. It must build external communication networks which enable it to contact these agencies. In part, this has been achieved on the basis of the OECD/CERI network of relationships, and in part by using the external communication networks of the participating agencies. This has been evident both in the search for potential sponsors of a common project and in the identification of potential users (teachers, schools, school-systems). Increasingly, and especially in relation to sponsors, the Consortium has centralised its communication processes so that communication is identified as with the Consortium rather than participating agencies. Interestingly, this happens to a lesser degree with potential users. There are cases of centralised communication with potential users, however, as in the case of the "discussion forum" in Sydney (part of the September 1979 Annual Meeting) where potential Australian users of Pacific Circle materials attended a meeting of the whole Consortium. Similarly, the meeting in Sydney with participants in the Asian Programme for Educational Innovation and Development (APEID) helped the Consortium to define its relationship to a roughly comparable body (with some similar functions but neither sponsor nor user). Finally, there has been weak or indirect evidence of centralised communication when participating agencies make unilateral contacts with potential sponsors or users and refer them to PCC documents to explain the purpose of the interaction.

186. Second, the development of external relations is evident in interactions which identify the Consortium as an entity for other agencies. One important aspect of this identification process is the activity of legitimising the Consortium. Procedures for extending the membership of the Consortium also serve to define its identity externally. The new charter proposes a procedure by which appropriate institutions and agencies may be invited to join the Consortium and by which their membership can be formalised and "regularised". Such procedures also create the mechanism by which potential participants can be "instrumentalised" to the structure and function of the Consortium. But the most compelling form of identification of the Consortium will come as it establishes productive relations with third parties (sponsors and users), and can be seen to be performing valued services for them.

187. Third, the Consortium must develop external interactions which allow it to carry out its curriculum development and dissemination tasks. In the past, the Consortium has depended almost entirely upon the instrumentality of individual participating agencies to carry out its work. Increasingly, it must arrange access to the means of production for multilateral tasks. This may occur in some bilateral projects or for the proposed common project. If it is to develop productive capacity in its own right, it must be able to hire or deploy staff for Consortium purposes (as distinct from the purposes of

individual participants), attract resources for common work, and organise production at the Consortium level. Similarly, it must gain access to means for distribution of its products and its resources, deploying them where they may best serve Consortium purposes and functions. Finally, it must arrange the marketing of its products so that they are seen to be products of the Consortium and so that they can return new return new resources to the Consortium for further work. At the moment, it would seem that the Consortium has not yet achieved instrumentalisation of participants to the community self-interests of the group; in this sense, it is still instrumental to participating agencies and not yet independent of them. Such resources as are returned to Circle work from Circle work are returned to individual participants and not to the whole. In this sense, the political economy of the Consortium is based on "parallel" activity, not integrated co-operation.

Threats to survival

188. The PCC has not yet achieved autopoiesis. It may survive without doing so, simply as an association of participating agencies whose self-interests are served by the co-operation the Consortium makes possible. But the events of the last year or so suggest that in order to maintain co-operation a new level of organisation has become necessary. If the whole was not to fragment along the lines of the contending self-interests of participating agencies, then the group needed to achieve a new level of integration. The charter and its formal procedures, the formal record of agreements and decisions, and the record of expected future activities have all served to bind participants to the Consortium and to instrumentalise them to the common programme. This formalisation and proceduralisation has no doubt helped to integrate the Consortium and to order its operation both internally and externally. Such explicit agreements only seem necessary, however, when there are threats to the integrity of the whole either internally (from participants) or externally (from outsiders). There are indications that individual institutional self-interests have threatened the community self-interests, and that the fragile network of implicit understandings could have shattered under more intense pressure. Under such circumstances, centralisation of decision-making and co-ordination of unilateral initiatives may be necessary. But, in the longer term, there is also a danger in too slavish a fealty to the common programme, too literal an implementation of its policies, or too inflexible a set of procedures which could reduce the capacity of the Consortium to transform itself in the light of changing circumstances. For the time being, however, the problem is of reaching common interpretations of corporate principles and procedures, not of being too slavish, literal or inflexible in implementing them.

189. In any case, the PCC has shown, and continues to show a strong interest in evaluation as a means for recognising threats to its survival. Many of the dangers listed below may be countered by the Consortium in the light of its own evaluative activity.

190. Both within the Consortium and in its external relations and interactions, threats to survival may be located in its patterns of communication, its integrative procedures, and its production functions.

191. In relation to internal structure and function, threats to the survival of the PCC exist in each of the domains of metabolic processes, processes of growth and development, replication and adaptability.

192. With respect to metabolic processes, the Consortium may be endangered (a) by failure to convert contending self-interests into community self-interests, (b) by inequities in reward (where the self-interest of one or a small group of participants are served at the expense of others), (c) by failures of communication and reciprocity of understandings within, (with consequent breakdown in integrative functioning), and (d) by failures of productive capacity. There is evidence of occasional disharmony in internal relations which suggests that some of these dangers may be or become real. As might be expected, the contending self-interests of participating agencies are pulling the Consortium in slightly different directions with respect to agreed procedures, appropriate tasks, appropriate work-patterns and appropriate strategies. This is to be expected as negotiations over the form of the Consortium take place between participants. To some extent, these negotiations have resulted in agreed principles and procedures, but several crucial questions of self-interests remain to be decided, for example, with respect to the priority of a common project co-operative development.

193. With respect to growth and development, the Consortium may be threatened by failure to achieve order and stability (dynamic equilibrium) in communication, by failure to achieve integrated co-operative work (rather than individual or parallel activities), and by failure to achieve productive capability. The Consortium is still in the process of resolving these problems, and there is no reason to believe that acceptable solutions cannot be devised.

194. With respect to replication, there is some risk that formalisation and proceduralisation cannot be achieved to a sufficient degree to allow participants to carry out the work of the Consortium by invoking its characteristic patterns of communication, co-ordination, production and distribution. This is a problem of "memory": the Consortium must have conventional modes of response available to meet at least some standard situations. As has been suggested, it is currently developing such procedures.

195. Still another problem area for the Consortium is that of developing adaptive capacity. At the moment, its procedures are fluid and open, but the process of formalisation and proceduralisation has begun. Should its procedures ever become rigidified, there is the danger that it will be unable to adapt to changing circumstances.

196. In relation to external structure and function, the Consortium is prone to several kinds of dangers. First, it may fail in communication - to build adequate communications with hosts and sponsors which can establish the channels for exchange of products and resources and make regulation of such exchanges possible.

197. Second, the Consortium may fail to establish its identity vis-à-vis potential sponsors, users of its products and other agencies necessary for its productive work. Moreover, it may fail to establish its legitimacy, either derivatively (through OECD/CERI and the participating agencies) or independently (by its own efficacy). In this case, it will only have interactions with third-party agencies when these are mediated through OECD/CERI or participating agencies. But the Consortium may fail to establish its identity for external agencies in another way: if it fails to "instrumentalise" participating agencies, then it will only exist as a kind of banner or rallying-point for participants. In this case, third-party institutions will want to decide whether, in their interactions with the PCC, they are not in reality serving the disguised self-interests of participating agencies ("disguised" in the sense that they are represented through the prism of the Consortium), rather than the explicit community self-interests of the Consortium.

198. Thirdly, and most straightforwardly, the Consortium may fail to achieve market viability. It may fail to organise its means of production adequately or efficiently for its tasks, it may fail to generate usable products, it may fail to distribute them adequately, or it may fail to organise the means by which resources are returned to it (directly through sales or indirectly through achieving "visibility" and attracting further grants) for continuing productive work. For the present, these processes are mostly "on the drawing-board" for the Consortium: by and large, its activity to date has been loosely co-operative rather than highly integrated. Bilateral projects may bring appropriate mechanisms and procedures into existence, as may the proposed common project. For the time being, however, the Consortium depends upon the productive efficacy of individual participants; it has not yet needed to specialise its own production processes and locate different tasks with different participants (or create its own production). It has been sufficient to have undifferentiated production processes, in the sense that each Consortium member has produced its own products; the Consortium has only produced an integrating framework - and has needed only the means to produce such global organisational principles (the means of production being meetings between specialists with appropriate expertise, means for communication between them, and common commitment to the task).

199. As the tener of these remarks suggests, the events of the next two years will demonstrate whether these threats to the Consortium are more hypothetical than real. The major questions still hinge upon the willingness of participant institutions to become instrumental to the community self-interests of the Consortium, their willingness to participate in a highly-integrated common project, and their willingness to participate in activities of the Consortium of institutions as outlined in the charter (as distinct from participation in the Consortium as an expression of OECD/CERI activity - the Consortium of countries). Each of these questions affects the self-interests of participating agencies differently. It is along such lines that the fabric of agreements to date could become unravelled. It should be noted, however, that the Consortium has a history of successfully negotiating agreements along such lines of contention, and even if the questions are becoming harder (in the sense that they touch participants' self-interests more directly) there is evidence that the common aspirations of participants, the accumulated goodwill, and the history of co-operation may provide sufficient cohesion for the Consortium to ride out the storms of contention.